

Congenital Hip Dysplasia

THE PRESENCE of any sign of congenital dysplasia of the hip demands early treatment. The examiner must be aware that dislocation is rarely found at birth, but develops from dysplasia of the acetabular roof or laxity of the ligamentous structures holding the hip.

There is overwhelming evidence that the results of treatment directly relate to the age at diagnosis. The question becomes one of identifying infants with hips that can be subluxated or that have some evidence of instability, laxity, or dysplasia.

The most widely used test is the "clunk" of dislocation on examination of the hips of a relaxed infant at a time when he is not crying. Ortolani's name is associated with this test. The tight adductors on the side of an involved hip found with abduction testing of the hips is associated with Barlow's name. The asymmetry frequently found in the gluteal folds, leg length differences, or differences in positioning of the legs at rest should all alert the examiner of the likely diagnosis. Bilateral involvement becomes more difficult to diagnose and the need for x-ray studies combined with physical findings becomes more apparent.

As results are excellent with early diagnosis and splinting, it is mandatory that every infant be carefully examined for "loose hips." This is especially true in light of the relatively dismal comparative results of late diagnosis and treatment of congenital dislocation of the hip. The most highly suspect group is made up of children who were breech delivered or who have a family history of hip dislocation. Late dislocation—during the first two years of life—may also occur, and for that reason repeated examination for this condition during that period is important.

Where examination of all neonates for congenital hip disease is carried out by an enlightened medical staff, rarely are late surgical salvage procedures necessary.

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Present Status of Anterior Interbody Fusion in Treatment of Disorders of the Lumbar Spine

A PERSISTENT and significant incidence of failure following treatment of herniated nucleus pulposus of the lumbar region with laminectomy or with laminectomy and posterior fusion has led to the search for alternative methods of treatment during the past two decades. The technique of anterior interbody fusion of the lumbar spine has been applied to this problem at several centers. Both transperitoneal and retroperitoneal approaches have been advocated for anterior interbody fusion. The early applications of the anterior or anterolateral approaches to the lumbar or thoracic spine were for the management of tuberculosis of the spine and were used principally in Africa and in Hong Kong. Since then, several series have been reported, giving results of anterior lumbar fusion for disc disorders.

The indications for the procedure have varied considerably and range from "All types of lumbar disc syndrome at all ages," to "Use for salvage procedures only after posterior or posterolateral attempts at fusion have failed." Just as indications for the operations are hard to define, so are the results of lower lumbar spine fusion difficult to evaluate. Nevertheless, high failure rates have become more obvious with the passage of time, with the anterior interbody fusion technique. Disappointing results in spondylolisthesis have been attributed to sacrifice of the stabilizing effect of the anterior part of the annulus fibrosis. For this reason, Hoover looked upon the use of the anterior approach for arthrodesis in spondylolisthesis as illogical. Furthermore, he expressed the opinion that owing to the vast differences in incidence of fusion, evaluation of the reliability of the procedure would be difficult. The report of Taylor on 226 cases treated by the Harmon technique echoes this conclusion. The fusion rate in this series was only 44 percent and no close correlation was observed between the presence or absence of fusion and patient response. In particular, it was pointed out that results of the procedure were uniformly poor in patients with compensation claims. In Taylor's opinion, as well as in the opinion of Stauffer and Coventry, the operation should be regarded as unreliable, useful primarily as a salvage procedure when previous operation has resulted in posterior instability, or

where the procedure is required for direct exposure of lesions such as tumors or granulomatous infections of the spine. There seems little reason to refute this judgment on the basis of the available evidence.

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Immediate Treatment of Spinal Cord Injuries

A PATIENT with a spinal cord injury that is clinically complete at 24 hours, as determined by accurate neurologic examination, will not have functional cord recovery. It is generally agreed that laminectomy is of little value and routine use of it has now been generally abandoned among paraplegists and at spinal injury centers.

Recent experimental evidence indicates that the neurologic damage may be due to edema within the constricting pia mater, which reduces venous return from the cord tissue. This decreases oxygen tension and the neurologic tissue suffers irreversible damage. Cooling of the cord with iced saline solution in the early post-injury phase has shown promise of being a method of avoiding the edema and the increased venous pressures. High doses of steroid administration and myelotomy also have shown some promise of decreasing the destruction of the neural tissue. Some investigators have found evidences of extremely high levels of nor-epinephrine locally in the damaged spinal cord tissue and have demonstrated the microscopic auto-destruction of the cord within four hours following injury. They have shown some ability to reverse this destructive tendency with monoamine inhibitors.

At the clinical level at present, however, there is no method of recovering lost neurologic function in the complete spinal cord injury. Early immediate care should be focused at realigning the spinal canal. Surgical treatment is indicated only for patients who have gross dislocations which cannot be reduced by closed methods. Whether to stabilize the spine surgically or treat it in traction until it heals by body repair mecha-

nisms depends on the judgment of the physician who is responsible for the total treatment program of the patient. There is no evidence that surgical stabilization will increase neurologic return; however, a stable spine allows more rapid rehabilitation training and earlier discharge from the hospital.

Lest bladder infection develop, a Foley catheter should be inserted immediately and the urinary output monitored for 24 hours. At the end of that time the catheter should be withdrawn and the patient treated with intermittent catheterization. This has now been proved beyond doubt the best method by far for treating the "neurogenic bladder" to avoid over-distension and chronic infection.

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Little League Elbow

COMPETITIVE ORGANIZED BASEBALL PROGRAMS for boys in the 8- to 15-year age group have introduced new clinical entities such as Little League shoulder and Little League elbow involving the throwing arms of young pitchers.

Throwing a baseball hard as required by pitchers entails an abnormal whip-like action of the arm which places an unusual traction strain on the shoulder and elbow joints. In growing youngsters this traction strain is transmitted to, or through, the ununited epiphyses.

Comparative roentgenograms of both elbows of 162 youngsters in the 9- to 14-year age group demonstrated the so-called Little League elbow to be primarily involvement of the medial epicondylar epiphysis, with fragmentation, separation and accelerated growth noted in all 80 pitchers in the study. Less common, but more serious, were changes in the form of traumatic osteochondrosis of the capitellum of the humerus, head of the radius, and proximal humeral epiphysis.

Since these changes are caused by repetitious trauma, treatment is primarily preventive—rule changes to limit the amount of throwing by pitchers, and encouraging youngsters to report elbow or shoulder pain immediately and to stop pitching. The symptoms subside rapidly with rest at this stage, and the youngster can then resume